

The ability of measuring ...

S/880/61/000/079/009/011
E194/E455

improved somewhat, presumably because of running-in. The instrument was solidly mounted in a locomotive and gave good service for over two years. The supply for the vibrator is not particularly difficult to provide because the wave shape and frequency are not critical and in any case auxiliary supplies are commonly available where these instruments are used. There are 3 figures.

Card 3/3

AUTHOR: Pupko, V.Ya.

89 -1-3/18

TITLE: The Analysis of the Dependence Existing Between the Critical Load and the Critical Volume of Different Reactor Types
(Analiz zavisimosti mezhdru kriticheskoy zagruzkoy i kriticheskim ob'yemom dlya reaktorov razlichnogo tipa).

PERIODICAL: Physics and Thermotechniques of Reactors (Fizika i teplotekhnika reaktorov), Supplement Nr 1 to Atomnaya energiya, 1958, (USSR)

ABSTRACT: One of the most frequent tasks to be performed in reactor calculation is determining the volume of the active zone V and the corresponding critical load of the fissile material G . The connection between these two quantities $G = f(V)$ has not been investigated either theoretically or experimentally for a certain type of reactor in the case of all possible concentrations of the fissile substance. The attempt is made theoretically to find indications as to the behavior of the function mentioned. The result may be summarized as follows:

- 1.) The derived function $G = f(V)$ for any type of reactor is determined by 2 parameters: a) the neutron leakage factor α , and b) the factor η .

Card 1/2

The Analysis of the Dependence Existing Between the
Critical Load and the Critical Volume of Different
Reactor Types

89 -1-3/18

- 2.) There exists a group of uranium-water-reactors which works with epithermal neutrons, in which case $\eta < 0$. The decrease of U^{235} in these reactors is accompanied by a certain increase of the reactivity.

There are 4 figures and 7 references, 3 of which are Slavic.

AVAILABLE: Library of Congress

Card 2/2 1. Reactors-Mathematical analysis

1 Pu PKO, U. YA.

21(4) PHASE I BOOK EXPLOITATION 30V/2583

International Conference on the Peaceful Uses of Atomic Energy, 2nd, Geneva, 1958.

Doklady sovetskikh uchenykh; yadernyye reaktory i yadernaya energiya. (Reports of Soviet Scientists; Nuclear Reactors and Nuclear Power) Moscow, Atomizdat, 1959. 707 p. (Series: It's today, vol. 2) Errata slip inserted. 9,000 copies printed.

General Eds.: M.A. Dollethal, Corresponding Member, USSR Academy of Sciences; A.K. Krasin, Doctor of Physical and Mathematical Sciences, A.I. Lopyunsky, Member, USSR Academy of Sciences; I.I. Morozov, Corresponding Member, USSR Academy of Sciences; and V.I. Fursov, Doctor of Physical and Mathematical Sciences; Ed.: A.P. Alyab'yev, Tech. Ed.: Ye. I. Mazel.

PURPOSE: This book is intended for scientists and engineers engaged in reactor designing, as well as for professors and students of higher technical schools where reactor design is taught.

COVERAGE: This is the second volume of a six-volume collection on the peaceful use of atomic energy. The six volumes contain the reports presented by Soviet scientists at the Second International Conference on Peaceful Uses of Atomic Energy, held from September 1 to 13, 1958 in Geneva. Volume 2 consists of three parts. The first is devoted to atomic power plants and construction in the Soviet Union; the second to experimental and theoretical work in the field of nuclear reactor physics and construction engineering; the third, which is predominantly theoretical, to problems of nuclear reactor physics and construction engineering. Yu. I. Morozkin is the science editor of this volume. See 30V/2061 for titles of all volumes of the set. References appear at the end of the articles.

Mostovoy, V.I., V.S. Dikarev, M.B. Yegizarov, and Yu. S. Saltykov. Measuring Neutron Spectra in Uranium Water Lattices (Report No. 2152) 546

Krasin, A.K., B.G. Dubovskiy, M.M. Lantsov, Yu.Yu. Glazkov, R.K. Gocharov, A.V. Khasayev, L.A. Gerasova, V.V. Vavilov, Ye. I. Izyutin, and A.P. Sanchenkov. Studying the Physical Characteristics of a Beryllium-moderator Reactor (Report No. 2146) 555

Galanin, A.D., S.A. Nemirovskaya, A.P. Rudik, Yu. G. Abov, V.P. Belkin, and P.A. Krupchitskiy. Critical Experiment on an Experimental Heavy-water Reactor (Report No. 2036) 570

Machuk, G.I., Ye. Ya. Buzuk, Ye. I. Pogudalina, V.V. Seelov, I.P. Trutnev, V.G. Platova, and G.I. Druzhnina. Certain Problems in Nuclear Reactor Physics and Methods of Calculating Them (Report No. 2151) 588

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Gel'fand, I.M., S.M. Feynberg, A.S. Prolov, and M.N. Chentsov. Using the Monte Carlo Method of Random Sampling for Solving the Kinetic Equation (Report No. 2141) 636

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Kasimovskiy, M.V., A.V. Stepanov, and P.L. Shapiro. Neutron Thermalization and Diffusion in Heavy Media (Report No. 2148) 651

Vernik, A.I., V.S. Yermakov, and A.V. Lykov. Using the Onsager Theory for Studying Neutron Diffusion in the Absorbing Media of Nuclear Reactors (Report No. 2224) 668

Broder, D.L., S.A. Murkin, A.A. Rutuzov, V.V. Levin, and V.V. Orlov. Studying the Spatial and Energy Distribution of Neutrons in Different Media (Report No. 2147) 674

Dmitriyev, A.B. Boron Ionization Chambers for Work in Nuclear Reactors (Report No. 2084) 690

Kisillin, V.A. and S.A. Ulybin. Experimental Determination of Specific Volumes of Heavy Water in a Wide Temperature and Pressure Range (Report No. 2471) 696

B(0)

PHASE 1: BOOK DELIVERY **05/2001**

International Conference on the Non-Full Uses of Atomic Energy, 2d., Moscow, 1956
Solidly serviceable subjects; preliminary films (imported of Soviet Scientists);
Solidly Physics; Moscow, Atomizdat, 1959. 35d p. (British Text Study, vol. 1)
8,600 copies printed.

Ms. (Title page): A.T. Allibauer, Academician V.T. Vlasov, Academician) and R.A. Vlasov, Candidates of Physical and Mathematical Sciences) Ed. of title volume 6.1; Brester and B.P. Karavitsky, Candidates of Physical and Mathematical Sciences) Ms. (article book) 6.1.6; 6.1.7; 6.1.8; 6.1.9; 6.1.10; 6.1.11; 6.1.12; 6.1.13; 6.1.14; 6.1.15; 6.1.16; 6.1.17; 6.1.18; 6.1.19; 6.1.20; 6.1.21; 6.1.22; 6.1.23; 6.1.24; 6.1.25; 6.1.26; 6.1.27; 6.1.28; 6.1.29; 6.1.30; 6.1.31; 6.1.32; 6.1.33; 6.1.34; 6.1.35; 6.1.36; 6.1.37; 6.1.38; 6.1.39; 6.1.40; 6.1.41; 6.1.42; 6.1.43; 6.1.44; 6.1.45; 6.1.46; 6.1.47; 6.1.48; 6.1.49; 6.1.50; 6.1.51; 6.1.52; 6.1.53; 6.1.54; 6.1.55; 6.1.56; 6.1.57; 6.1.58; 6.1.59; 6.1.60; 6.1.61; 6.1.62; 6.1.63; 6.1.64; 6.1.65; 6.1.66; 6.1.67; 6.1.68; 6.1.69; 6.1.70; 6.1.71; 6.1.72; 6.1.73; 6.1.74; 6.1.75; 6.1.76; 6.1.77; 6.1.78; 6.1.79; 6.1.80; 6.1.81; 6.1.82; 6.1.83; 6.1.84; 6.1.85; 6.1.86; 6.1.87; 6.1.88; 6.1.89; 6.1.90; 6.1.91; 6.1.92; 6.1.93; 6.1.94; 6.1.95; 6.1.96; 6.1.97; 6.1.98; 6.1.99; 6.1.100; 6.1.101; 6.1.102; 6.1.103; 6.1.104; 6.1.105; 6.1.106; 6.1.107; 6.1.108; 6.1.109; 6.1.110; 6.1.111; 6.1.112; 6.1.113; 6.1.114; 6.1.115; 6.1.116; 6.1.117; 6.1.118; 6.1.119; 6.1.120; 6.1.121; 6.1.122; 6.1.123; 6.1.124; 6.1.125; 6.1.126; 6.1.127; 6.1.128; 6.1.129; 6.1.130; 6.1.131; 6.1.132; 6.1.133; 6.1.134; 6.1.135; 6.1.136; 6.1.137; 6.1.138; 6.1.139; 6.1.140; 6.1.141; 6.1.142; 6.1.143; 6.1.144; 6.1.145; 6.1.146; 6.1.147; 6.1.148; 6.1.149; 6.1.150; 6.1.151; 6.1.152; 6.1.153; 6.1.154; 6.1.155; 6.1.156; 6.1.157; 6.1.158; 6.1.159; 6.1.160; 6.1.161; 6.1.162; 6.1.163; 6.1.164; 6.1.165; 6.1.166; 6.1.167; 6.1.168; 6.1.169; 6.1.170; 6.1.171; 6.1.172; 6.1.173; 6.1.174; 6.1.175; 6.1.176; 6.1.177; 6.1.178; 6.1.179; 6.1.180; 6.1.181; 6.1.182; 6.1.183; 6.1.184; 6.1.185; 6.1.186; 6.1.187; 6.1.188; 6.1.189; 6.1.190; 6.1.191; 6.1.192; 6.1.193; 6.1.194; 6.1.195; 6.1.196; 6.1.197; 6.1.198; 6.1.199; 6.1.200; 6.1.201; 6.1.202; 6.1.203; 6.1.204; 6.1.205; 6.1.206; 6.1.207; 6.1.208; 6.1.209; 6.1.210; 6.1.211; 6.1.212; 6.1.213; 6.1.214; 6.1.215; 6.1.216; 6.1.217; 6.1.218; 6.1.219; 6.1.220; 6.1.221; 6.1.222; 6.1.223; 6.1.224; 6.1.225; 6.1.226; 6.1.227; 6.1.228; 6.1.229; 6.1.230; 6.1.231; 6.1.232; 6.1.233; 6.1.234; 6.1.235; 6.1.236; 6.1.237; 6.1.238; 6.1.239; 6.1.240; 6.1.241; 6.1.242; 6.1.243; 6.1.244; 6.1.245; 6.1.246; 6.1.247; 6.1.248; 6.1.249; 6.1.250; 6.1.251; 6.1.252; 6.1.253; 6.1.254; 6.1.255; 6.1.256; 6.1.257; 6.1.258; 6.1.259; 6.1.260; 6.1.261; 6.1.262; 6.1.263; 6.1.264; 6.1.265; 6.1.266; 6.1.267; 6.1.268; 6.1.269; 6.1.270; 6.1.271; 6.1.272; 6.1.273; 6.1.274; 6.1.275; 6.1.276; 6.1.277; 6.1.278; 6.1.279; 6.1.280; 6.1.281; 6.1.282; 6.1.283; 6.1.284; 6.1.285; 6.1.286; 6.1.287; 6.1.288; 6.1.289; 6.1.290; 6.1.291; 6.1.292; 6.1.293; 6.1.294; 6.1.295; 6.1.296; 6.1.297; 6.1.298; 6.1.299; 6.1.300; 6.1.301; 6.1.302; 6.1.303; 6.1.304; 6.1.305; 6.1.306; 6.1.307; 6.1.308; 6.1.309; 6.1.310; 6.1.311; 6.1.312; 6.1.313; 6.1.314; 6.1.315; 6.1.316; 6.1.317; 6.1.318; 6.1.319; 6.1.320; 6.1.321; 6.1.322; 6.1.323; 6.1.324; 6.1.325; 6.1.326; 6.1.327; 6.1.328; 6.1.329; 6.1.330; 6.1.331; 6.1.332; 6.1.333; 6.1.334; 6.1.335; 6.1.336; 6.1.337; 6.1.338; 6.1.339; 6.1.340; 6.1.341; 6.1.342; 6.1.343; 6.1.344; 6.1.345; 6.1.346; 6.1.347; 6.1.348; 6.1.349; 6.1.350; 6.1.351; 6.1.352; 6.1.353; 6.1.354; 6.1.355; 6.1.356; 6.1.357; 6.1.358; 6.1.359; 6.1.360; 6.1.361; 6.1.362; 6.1.363; 6.1.364; 6.1.365; 6.1.366; 6.1.367; 6.1.368; 6.1.369; 6.1.370; 6.1.371; 6.1.372; 6.1.373; 6.1.374; 6.1.375; 6.1.376; 6.1.377; 6.1.378; 6.1.379; 6.1.380; 6.1.381; 6.1.382; 6.1.383; 6.1.384; 6.1.385; 6.1.386; 6.1.387; 6.1.388; 6.1.389; 6.1.390; 6.1.391; 6.1.392; 6.1.393; 6.1.394; 6.1.395; 6.1.396; 6.1.397; 6.1.398; 6.1.399; 6.1.400; 6.1.401; 6.1.402; 6.1.403; 6.1.404; 6.1.405; 6.1.406; 6.1.407; 6.1.408; 6.1.409; 6.1.410; 6.1.411; 6.1.412; 6.1.413; 6.1.414; 6.1.415; 6.1.416; 6.1.417; 6.1.418; 6.1.419; 6.1.420; 6.1.421; 6.1.422; 6.1.423; 6.1.424; 6.1.425; 6.1.426; 6.1.427; 6.1.428; 6.1.429; 6.1.430; 6.1.431; 6.1.432; 6.1.433; 6.1.434; 6.1.435; 6.1.436; 6.1.437; 6.1.438; 6.1.439; 6.1.440; 6.1.441; 6.1.442; 6.1.443; 6.1.444; 6.1.445; 6.1.446; 6.1.447; 6.1.448; 6.1.449; 6.1.450; 6.1.451; 6.1.452; 6.1.453; 6.1.454; 6.1.455; 6.1.456; 6.1.457; 6.1.458; 6.1.459; 6.1.460; 6.1.461; 6.1.462; 6.1.

FRONTIS. Collection of articles is intended for scientific research workers and other persons interested in nuclear physics. The volume contains 3 papers presented by Soviet scientists at the Second Conference on Nuclear Uses of Atomic Energy, held in Moscow in September 1960.

CONTENTS. It is divided into two parts. Part I contains 17 papers dealing with plasma physics and controlled thermonuclear reactions, and Part II contains 36 papers on nuclear physics, including problems of particle acceleration and of cosmic ray physics. The first paper by L. A. Arsenauval presents a review of progress work on controlled thermonuclear reactions. The remaining papers in Part I deal with particular problems in this field.

reports in Part II deal, in detail, with various problems in nuclear physics, such as the reaction of heavy atoms and their isotopes, and with the study of cosmic radiation by means of artificial earth satellites and the production of a paper by R. W. Thayer. The Russian-language edition of the proceedings of the conference is published in 16 volumes. The first 6 volumes contain the papers presented by Soviet scientists as follows: Volume (1) "Deuteron (Deuterium Neutron and Neutron Neutron)"; Volume (2) "Deuteron"; Volume (3) "Deuteron Neutron and Neutron Neutron"; Volume (4) "Deuteron radiations and radiations of neutrons"; Volume (5) "Radiation of neutrons and radiations of neutrons"; Volume (6) "Radiation of neutrons and radiations of neutrons"; Volume (7) "Radiation of neutrons and radiations of neutrons"; Volume (8) "Radiation of neutrons and radiations of neutrons"; Volume (9) "Radiation of neutrons and radiations of neutrons"; Volume (10) "Radiation of neutrons and radiations of neutrons"; Volume (11) "Radiation of neutrons and radiations of neutrons"; Volume (12) "Radiation of neutrons and radiations of neutrons"; Volume (13) "Radiation of neutrons and radiations of neutrons"; Volume (14) "Radiation of neutrons and radiations of neutrons"; Volume (15) "Radiation of neutrons and radiations of neutrons"; Volume (16) "Radiation of neutrons and radiations of neutrons". The other 10 volumes contain abstract papers presented at the Conference by non-Soviet scientists. In the present volume discrepancies between the English and Russian language editions of the proceedings have been noted in three articles where the words are not identical: (1) "Radiation of neutrons and radiations of neutrons"; (2) "Radiation of neutrons and radiations of neutrons"; (3) "Radiation of neutrons and radiations of neutrons". The English edition of reports 2201, 2202 and 2203 are reviewed in the English edition.

WEEK OF OCTOBER 20-26

Imports of Short-Tail Sillfishes; Snappers (Cont.)

05/2011

Miller, i.e. the spontaneous fusion of C₆H₆ and 2-24 is type I superconductor, and finally in the absence of the Zeeman of B₁, B₂, and in (approx 20%) of the Arsenic doped graphite B₁, B₂, B₃, B₄, B₅, B₆, B₇, B₈, B₉, B₁₀, B₁₁, B₁₂, B₁₃, B₁₄, B₁₅, B₁₆, B₁₇, B₁₈, B₁₉, B₂₀, B₂₁, B₂₂, B₂₃, B₂₄, B₂₅, B₂₆, B₂₇, B₂₈, B₂₉, B₃₀, B₃₁, B₃₂, B₃₃, B₃₄, B₃₅, B₃₆, B₃₇, B₃₈, B₃₉, B₄₀, B₄₁, B₄₂, B₄₃, B₄₄, B₄₅, B₄₆, B₄₇, B₄₈, B₄₉, B₅₀, B₅₁, B₅₂, B₅₃, B₅₄, B₅₅, B₅₆, B₅₇, B₅₈, B₅₉, B₆₀, B₆₁, B₆₂, B₆₃, B₆₄, B₆₅, B₆₆, B₆₇, B₆₈, B₆₉, B₇₀, B₇₁, B₇₂, B₇₃, B₇₄, B₇₅, B₇₆, B₇₇, B₇₈, B₇₉, B₈₀, B₈₁, B₈₂, B₈₃, B₈₄, B₈₅, B₈₆, B₈₇, B₈₈, B₈₉, B₉₀, B₉₁, B₉₂, B₉₃, B₉₄, B₉₅, B₉₆, B₉₇, B₉₈, B₉₉, B₁₀₀, B₁₀₁, B₁₀₂, B₁₀₃, B₁₀₄, B₁₀₅, B₁₀₆, B₁₀₇, B₁₀₈, B₁₀₉, B₁₁₀, B₁₁₁, B₁₁₂, B₁₁₃, B₁₁₄, B₁₁₅, B₁₁₆, B₁₁₇, B₁₁₈, B₁₁₉, B₁₂₀, B₁₂₁, B₁₂₂, B₁₂₃, B₁₂₄, B₁₂₅, B₁₂₆, B₁₂₇, B₁₂₈, B₁₂₉, B₁₃₀, B₁₃₁, B₁₃₂, B₁₃₃, B₁₃₄, B₁₃₅, B₁₃₆, B₁₃₇, B₁₃₈, B₁₃₉, B₁₄₀, B₁₄₁, B₁₄₂, B₁₄₃, B₁₄₄, B₁₄₅, B₁₄₆, B₁₄₇, B₁₄₈, B₁₄₉, B₁₅₀, B₁₅₁, B₁₅₂, B₁₅₃, B₁₅₄, B₁₅₅, B₁₅₆, B₁₅₇, B₁₅₈, B₁₅₉, B₁₆₀, B₁₆₁, B₁₆₂, B₁₆₃, B₁₆₄, B₁₆₅, B₁₆₆, B₁₆₇, B₁₆₈, B₁₆₉, B₁₇₀, B₁₇₁, B₁₇₂, B₁₇₃, B₁₇₄, B₁₇₅, B₁₇₆, B₁₇₇, B₁₇₈, B₁₇₉, B₁₈₀, B₁₈₁, B₁₈₂, B₁₈₃, B₁₈₄, B₁₈₅, B₁₈₆, B₁₈₇, B₁₈₈, B₁₈₉, B₁₉₀, B₁₉₁, B₁₉₂, B₁₉₃, B₁₉₄, B₁₉₅, B₁₉₆, B₁₉₇, B₁₉₈, B₁₉₉, B₂₀₀, B₂₀₁, B₂₀₂, B₂₀₃, B₂₀₄, B₂₀₅, B₂₀₆, B₂₀₇, B₂₀₈, B₂₀₉, B₂₁₀, B₂₁₁, B₂₁₂, B₂₁₃, B₂₁₄, B₂₁₅, B₂₁₆, B₂₁₇, B₂₁₈, B₂₁₉, B₂₂₀, B₂₂₁, B₂₂₂, B₂₂₃, B₂₂₄, B₂₂₅, B₂₂₆, B₂₂₇, B₂₂₈, B₂₂₉, B₂₃₀, B₂₃₁, B₂₃₂, B₂₃₃, B₂₃₄, B₂₃₅, B₂₃₆, B₂₃₇, B₂₃₈, B₂₃₉, B₂₄₀, B₂₄₁, B₂₄₂, B₂₄₃, B₂₄₄, B₂₄₅, B₂₄₆, B₂₄₇, B₂₄₈, B₂₄₉, B₂₅₀, B₂₅₁, B₂₅₂, B₂₅₃, B₂₅₄, B₂₅₅, B₂₅₆, B₂₅₇, B₂₅₈, B₂₅₉, B₂₆₀, B₂₆₁, B₂₆₂, B₂₆₃, B₂₆₄, B₂₆₅, B₂₆₆, B₂₆₇, B₂₆₈, B₂₆₉, B₂₇₀, B₂₇₁, B₂₇₂, B₂₇₃, B₂₇₄, B₂₇₅, B₂₇₆, B₂₇₇, B₂₇₈, B₂₇₉, B₂₈₀, B₂₈₁, B₂₈₂, B₂₈₃, B₂₈₄, B₂₈₅, B₂₈₆, B₂₈₇, B₂₈₈, B₂₈₉, B₂₉₀, B₂₉₁, B₂₉₂, B₂₉₃, B₂₉₄, B₂₉₅, B₂₉₆, B₂₉₇, B₂₉₈, B₂₉₉, B₃₀₀, B₃₀₁, B₃₀₂, B₃₀₃, B₃₀₄, B₃₀₅, B₃₀₆, B₃₀₇, B₃₀₈, B₃₀₉, B₃₁₀, B₃₁₁, B₃₁₂, B₃₁₃, B₃₁₄, B₃₁₅, B₃₁₆, B₃₁₇, B₃₁₈, B₃₁₉, B₃₂₀, B₃₂₁, B₃₂₂, B₃₂₃, B₃₂₄, B₃₂₅, B₃₂₆, B₃₂₇, B₃₂₈, B₃₂₉, B₃₃₀, B₃₃₁, B₃₃₂, B₃₃₃, B₃₃₄, B₃₃₅, B₃₃₆, B₃₃₇, B₃₃₈, B₃₃₉, B₃₄₀, B₃₄₁, B₃₄₂, B₃₄₃, B₃₄₄, B₃₄₅, B₃₄₆, B₃₄₇, B₃₄₈, B₃₄₉, B₃₅₀, B₃₅₁, B₃₅₂, B₃₅₃, B₃₅₄, B₃₅₅, B₃₅₆, B₃₅₇, B₃₅₈, B₃₅₉, B₃₆₀, B₃₆₁, B₃₆₂, B₃₆₃, B₃₆₄, B₃₆₅, B₃₆₆, B₃₆₇, B₃₆₈, B₃₆₉, B₃₇₀, B₃₇₁, B₃₇₂, B₃₇₃, B₃₇₄, B₃₇₅, B₃₇₆, B₃₇₇, B₃₇₈, B₃₇₉, B₃₈₀, B₃₈₁, B₃₈₂, B₃₈₃, B₃₈₄, B₃₈₅, B₃₈₆, B₃₈₇, B₃₈₈, B₃₈₉, B₃₉₀, B₃₉₁, B₃₉₂, B₃₉₃, B₃₉₄, B₃₉₅, B₃₉₆, B₃₉₇, B₃₉₈, B₃₉₉, B₄₀₀, B₄₀₁, B₄₀₂, B₄₀₃, B₄₀₄, B₄₀₅, B₄₀₆, B₄₀₇, B₄₀₈, B₄₀₉, B₄₁₀, B₄₁₁, B₄₁₂, B

[illegible]

Modestovskiy, I. V., B.D. Pavlov, L. S. Rikhsanov, L. I. Prokhorov, and G. M. Stetskiy. Average Incidence and Spectrum of Proliferative Lesions in the Oral Mucosa of Patients with Periodontal Disease. *Journal of Periodontal Practice* (August 1987).

Prevalence of Periodontal Diseases. In: L. H. Haywood, V. O. Vessell, J. A. Williams, H. L. Colburn, and E. S. Brannstrom, Eds. *Periodontal Diseases*. St. Louis, C.V. Mosby, 1986, pp. 1-10.

Amey, J. G., V. A. Gitterman and J. A. Pilch. Angular Correlation of Charge Particles from Nuclear Fission by High Energy Protons and Pits in emuls. (August 20/9)

• A •

paper to be presented at 2nd UN Intl. Conf. on the peaceful uses of Atomic
ENERGY, Geneva, 1 - 13 Sep 58.

"Nuclear Reactor Physical Problems and Calculation Methods."

MARCHUK, G. I., PUKHO, V. X., POGUDALINA, E. L., SMELOV, V. V., TUTBEREV,
I. P., PLATONOV, S. P. and DRUZHIKINA, G. I.

PUKHO V. X.

PUPKO, V. Ya. (and I. V. Gordeyev)

"EVALUATION OF NEUTRON ABSORPTION CROSS SECTION FOR U^{235} FISSION FRAGMENTS IN THE ENERGY RANGE OF $0.025 + 10^6$ ev AND CALCULATION OF THE FRAGMENT EFFECT IN INTER-MEDIATE REACTORS".

By I. V. Gordeyev and V. Y. Pupko.

Report presented at 2nd UN Atoms-for-Peace Conference, Geneva, 9-13 Sept. 1958.

L 01063-66 EPA(s)-2/EWT(m)/EWP(w)/EWA(d)/EPF(n)-2/T/EWP(t)/EWP(b) ES/JD/DM

ACCESSION NR: AP5014539

UR/0089/65/018/005/0483/0487
621.039.542:621.039.548

AUTHOR: Likhachev, Yu. I.; Zvonarev, V. P.; Pupko, V. Ya.

TITLE: Internal stresses due to uneven swelling of fissioning material

SOURCE: Atomnaya energiya, v. 18, no. 5, 1965, 483-487

TOPIC TAGS: fissioning material, reactor fuel element, fuel element swelling, internal stress, macrostress

ABSTRACT: The authors consider a new cause of macrostresses of the first kind in fuel elements, namely uneven swelling of the fissioning material, brought about by the fact that the fission products are not produced at equal rates over the cross section of the fuel element. The resultant stresses are calculated under certain simplifying assumptions, with a fuel element in the form of a long solid cylindrical rod as an example. The joint action of the stresses due to uneven swelling and of the temperature stresses is considered for brittle material, for plastic material with negligible creep (metal at relatively low temperature), and plastic material with appreciable creep (relatively high temperature level). It is shown that the uneven swelling must be taken into account in the strength calculations in the case of brittle material and material with negligible creep. Orig. art.

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ACCESSION NR: AP5014539

has: 2 figures and 8 formulas.

ASSOCIATION: none

SUBMITTED: 25 May 64

ENCL: 00

SUB CODE: NP

NR REF SOV: 003

OTHER: 004

Card 2/2

PUPKO, V. Ya.: MALYKH, V. A. GUSAKOV, I. M.: PETROVSKIY, V. L.: DMITRIYEV, V. M.:
YURIYEV, Yu. S.

"Some problems in the development of a thermionic research converter."

report to be presented at Intl Conf on Thermionic Electrical Power Generation,
London, 20-24 Sep 65.

USSR State Comm for Applications of Atomic Energy, Moscow.

L 24317-66 EWT(1)/EWT(m)/EPF(n)-2/EWG(m) WW

ACC NR: AT6006757

SOURCE CODE: UR/3158/65/000/027/0001/001755
B+1

AUTHOR: Pupko, V. Ya.; Malykh, V. A.; Gusakov, I. M.; Petrovskiy, V. G.; Dmitriyev, V. M.; Yur'yev, Yu. S.

ORG: Physics and Power Institute, State Committee on the Use of Atomic Energy SSSR
(Fiziko-energeticheskiy institut, Gosudarstvenny komitet po ispol'zovaniyu atomnoy energii SSSR)

TITLE: Certain problems in the development of a thermionic emission reactor converter

SOURCE: Obninsk. Fiziko-energeticheskiy institut. Doklady, no. 27, 1965. Nekotoryye problemy razrabotki termoemissionnogo reaktora-preobrazovatelya, 1-17

TOPIC TAGS: thermoelectric convertor, neutron physics, nuclear reactor, volt ampere characteristic

ABSTRACT: This is a review article dealing with several neutron-physics and engineering problems connected with the development of a thermionic converter in which heat energy is converted into electricity by using an electron emitter in contact with the fissioning material of a nuclear reactor. The first section of the paper deals with possible neutron-physics characteristics of such reactors, such as the use of fast or slow neutrons in the reactor, the dependence of the U-235 charge and the volume of the active zone of thermionic reactors on the concentration of the uranium in the active zones for different thicknesses of the beryllium reflector and for different cathode materials, the distribution of the energy release over the active zone, the

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ACC NR: AT6006757

degree of burnup, the dimensions of the active zone, the critical reactor load, and the type and amount of moderator. The second section deals with thermodynamic and electrical engineering problems involved in such a converter, such as losses, thermal efficiency, conversion efficiency, volt-ampere characteristics, and methods of minimizing the losses. The third section presents the results of reactor tests of three-element assemblies of thermionic converters, made in the loop channel of the reactor of the first atomic electric stations of the SSSR. Tests were made on different fuel rods both under diffusion and arc-discharge conditions. For the particular reactor tested, the losses amounted to 12% of the theoretical output power for ohmic electrode resistance and commutation, 10% for heat leakage from the cathode, and 5% due to the axial inhomogeneity of the heat release in the assembly. This reduces the theoretical power rating of 2.7--3 w/cm² to a value of 2 w/cm². Orig. art. has: 8 figures.

SUB CODE: 1420/1 ORIG REF: 002/ OTH REF: 004

SUBM DATE: none

Card 2/2 *fv*

PUPKO Ya V

Recrystallization of potassium chloride for the production of potassium chlorate. Ya. V. Pupko and S. S. Shraibman. *Khimistrol* 3, 2427-31 (1933).—Tech. KCl is freed from impurities of K_2SO_4 and K_2CO_3 by double decompn. with CaCl_2 ; mother liquor from the previous crystn. is used as the solvent. Chas. Blanc

ASM-AIA METALLURGICAL LITERATURE CLASSIFICATION

SOURCE SYMBOL ——— SOURCE MAP ——— DATE OF PUBLICATION ———

SEMI-SOLUBLE ALLOYS ——— SEMI-SOLID STATE ——— SOLID STATE ——— LIQUIDS ——— GASES ——— RADIATION EFFECTS ———

ALUMINUM — COPPER — IRON AND STEEL — NICKEL — TITANIUM — ZINC — OTHER METALS — NON-METALS — COMPOUNDS — PHYSICS — CHEMISTRY — BIOLOGY — MEDICINE — AGRICULTURE — MINING — ENGINEERING — MATHEMATICS — STATISTICS — ECONOMY — HISTORY — GEOGRAPHY — ARTS — RECREATION — EDUCATION — SCIENCE — GENERAL REFERENCE — INDEXES — MISCELLANEOUS —

PUPKOV, K.A. (Moskva)

Calculation of the accuracy of essentially nonlinear automatic
control systems. Avtom. i telem. 24 no.11:1573-1582 N '63.
(MIRA 16:12)

SOV/124-58-1-138

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 17 (USSR)

AUTHOR: Pupkov, K. A.

TITLE: To the Calculation of A-C Servomechanisms (K raschetu sledyashchikh sistem na peremennom toke)

PERIODICAL: Tr. Stud. nauchno-tekhn. o-va MVTU im. Baumana, 1957, Vol 3, pp 90-100

ABSTRACT: The author presents a method for the derivation of the transfer function for a two-phase motor. He examines an example consisting of an A-C servomechanism with a tachometer feedback.

Ye. N. Miroslavlev

Card 1/1

P. P. K. C. K. A.

PUPKOV, K. A.

Designing a.c. servo systems. Trudy SNTU MVTU no.3:90-100 '57.
(MIRA 10:4)

(Servomechanisms)

SOLODOVNIKOV, V.V.; PUPKOV, K.A.

Review of L.T. Kuzin's book "Calculation and design of discrete control systems." Izv. AN SSSR. Otd. tekhn. nauk. Tekhn. kib. no.1:203-204 Jan-Feb '63. (MIRA 16:7)

(Automatic control)
(Kuzin, L.T.)

L 26373-66 EWP(k)/EWP(h)/EWT(d)/EWP(1)/EWP(v)

ACC NR: AM501851

Monogram

45 UR/
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Pupkov, K. A.

Statistical calculation of nonlinear automatic control systems (Statisticheskiy raschet nelineynykh sistem avtomaticheskogo upravleniya) Moscow, Izd-vo "Mashino-stroyeniye", 1965. 402 p. illus., biblio. 6000 copies printed.

TOPIC TAGS: automation nonlinear control system, automatic control, optimal control

PURPOSE AND COVERAGE: This book is intended for engineers, technicians, scientists, aspirants, and students specializing in the theory and design of nonlinear automatic-control systems. The book deals with theoretical foundations and up-to-date computing methods of nonlinear automatic-control systems under conditions of regular and random action (response). Various diagrams of automatic-control systems and nonlinear characteristics of their elements are discussed. System classification according to the shape of signal at the input of a nonlinear element is given. Certain problems of nonlinear-system optimization and of nonlinear filter synthesis are cited. As a basis for the computation of nonlinear automatic-control systems and compiling necessary tables and plotting graphs, frequency methods in combination with statistical and harmonic linearization of nonlinear functions are explored. No personalities are mentioned.

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AVAILABLE: Library of Congress

SUB CODE: 09/ SUBM DATE: 08Mar65/ ORIG REF: 027/ OTH REF: 017

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ИУРКОВ, К.А.; ПОРКОВ, Я.П., доктор техн. наук, инж. телемех.,
БАРАНОВА, З.С., инж., ред.

[Statistical calculation of nonlinear systems of automatic
control] Statisticheskii raschet nelineinykh sistem avto-
matischeskogo upravleniia. Moskva, Mashinostroenie, 1965 p.
(MIRA 18:4)

L 50185-53 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) Po-4/Pq-4/Pf-4/Pg-4/Pk-4/ 7

Pl-4 IJP(c) BC

AM5015052

Izvoiskiy, V. G. Book Exploitation
Ageyev, V. M. (Engineer), and others [EDITORS ?]

UR

57

43

B+1

Instrument manufacture and automatic control devices; handbook in five volumes. v. 4: Automatic control and automatic devices (Priborostroyeniye i sredstva avtomatiki; spravochnik v pyati tomakh. t. 4: Avtomaticheskoye regulirovaniye i sredstva avtomatiki). Moscow, Izd-vo "Mashinostroyeniye", 1965. 716 p. illus., biblio., index. Errata slip inserted. 24,700 copies printed.

TOPIC TAGS: automation, automatic control systems, automatic controller classification, static linearization, designing complex automation

PURPOSE AND COVERAGE: This is the fourth volume of the handbook: "Instrument manufacture and automatic control devices." It consists of two parts. Part one presents the fundamentals and definitions of the theory of automatic control, modern methods of mathematical analysis and synthesis of linear and nonlinear systems, and the methods of their dynamic computation. The second part of

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the volume contains descriptions of typical electrically, pneu-
matically, and hydraulically operated controllers, actuating
mechanisms, and control systems. It also gives basic technical
characteristics of electronic computational techniques applied
in automation, and elucidates problems of the organization and
planning of the most widely used systems of automatic control.

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AM5015052

17. Hydraulic and electrical-hydraulic means of automation and auxiliary devices -- 618-643
18. Designing systems for control and automatic regulation (A. B. Rodov) -- 645-694

SUB CODE: IE

SUBMITTED: 05Feb65

NO REF SOV: 344

OTHER: 051

me
Card 4/4

English

Author: Ponomarev, I. A.

Title: Method of Identification of a Class of Essentially Nonlinear Automatic Control Systems by Means of the Equivalent Transfer Function

Source: Avtomatika i Telemekhanika, 1976, Vol. 21, No. 1, pp. 131-136 (USSR)

Summary: The present document describes a method of approximation of non-linear functions by an equivalent frequency coefficient or an equivalent "transfer" function. The equivalent frequency coefficient is defined as

$$K(\omega, c_x, m_x) = \sqrt{\frac{S_{out}(\omega)}{S_{in}(\omega)}} \quad (4)$$

where $S_{out}(\omega)$ and $S_{in}(\omega)$ are spectral densities of random process at the input and output of a non-linear element, respectively. The coefficient given

1. The correlation function of the input process is given by the expression

See also: 11-14/1-

where $R_{xx}(\tau)$ is a function of the correlation σ_{xx} of the random function of the input, and it also depends on the mathematical expectation m_x of the random process at the input. It depends, further, on the type of the nonlinear characteristic. In order to obtain $R_{yy}(\tau)$ the correlation function $R_y(\tau)$ of the random process at the output of the nonlinear element must be determined. This nonlinear function has the form

$$y = f(u), \quad (6)$$

It is assumed: (1) that at the input, the two-dimensional probability density has normal distribution; (2) that the correlation function of the random process at the input is known; (3) that $\sigma_{xx} = \sigma_{yy} = \sigma^2$, since the random process is stationary. Based on these assumptions, $R_{yy}(\tau)$ is calculated as

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$$R_{xx}(\tau) = \frac{1}{2\pi} \sum_{n=-\infty}^{\infty} \rho^n \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} f(\xi_1) f(\xi_2) e^{-\frac{\tau}{2} \left(\frac{\partial}{\partial \xi_1} + \frac{\partial}{\partial \xi_2} \right)} H_n(\xi_1) H_n(\xi_2) d\xi_1 d\xi_2 \quad (13)$$

where: $\rho = R(\tau)/R(0)$ is the normalized correlation function; $\xi_1 = x_1/\sigma$; $\xi_2 = x_2/\sigma$; $x_1 = x(t)$; $x_2 = x(t+\tau)$; $H_n(\xi_1)$ and $H_n(\xi_2)$ are orthogonal Hermite polynomials. The double integral in Eq. (13) is a product of two integrals, and Eq. (13) may be written as:

$$R_{xx}(\tau) = \sum_{n=0}^{\infty} a_n^2 \rho^n \quad (14)$$

where

$$a_n = \frac{1}{\sqrt{2\pi\sigma^2}} \int_{-\infty}^{\infty} f(\sigma\xi) H_n(\xi) e^{-\frac{\xi^2}{2}} d\xi \quad (15)$$

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The orthogonal Hermite polynomials $H_n(\xi)$ may be

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determined from Eq. (16).

$$\left(\frac{d}{d\xi}\right)^{\nu} e^{-\frac{\xi^2}{2}} = (-1)^{\nu} H_{\nu} e^{-\frac{\xi^2}{2}} \quad (16)$$

The series defined by Eq. (14) is absolutely convergent since $\rho(\tau)$ is a limited function and the coefficient b_{ν} decreases as $1/\nu$ diminishes. When the correlation function is determined, the spectral density may be obtained through the Fourier transformation, and the coefficient defined by Eq. (4) may be expressed as

$$K(\omega, \sigma_x, m_x) = \frac{1}{\sigma} \sqrt{\sum_{\nu=1}^{\infty} a_{\nu}^2 b_{\nu}} \quad (20)$$

WHERE

$$b_{\nu} = \frac{\delta^{\nu}(\omega)}{\delta_{\text{BX}}(\omega)}, \quad \delta^{\nu}(\omega) \rightarrow \rho^{\nu}(\tau).$$

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Approximate Solution of Amplitude of
Essentially Nonlinear Automatic Control
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The above coefficient may be written in the form of a product of conjugated complex numbers:

$$K_a^*(j\omega, \sigma_x, m_x) K(j\omega, \sigma_x, m_x) = K^2(\omega, \sigma_x, m_x). \quad (27)$$

By selecting the zeros and poles in the upper complex half-plane, the following expression is obtained for the equivalent "transfer" function:

$$K(j\omega, \sigma_x, m_x) = k_{er} \frac{(T_1 j\omega + 1)(T_2 j\omega + 1) \dots}{(T_3 j\omega + 1)(T_4 j\omega + 1) \dots}, \quad (28)$$

where

$$k_{er} = \frac{1}{\sigma_x} \sqrt{\frac{1}{a_1^2} + \frac{1}{2} \frac{1}{a_2^2} + \frac{1}{3} \frac{1}{a_3^2} + \dots} \quad (29)$$

$T_1, T_2, T_3, \dots$ are time constants. They are functions of σ_x and depend on the form of the spectral density at the input. It is obvious that in order to compute

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Method of Calculation of Accuracy of
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 Linearization

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the equivalent frequency coefficient, as well as the equivalent "transfer" function, the coefficients as defined by Eq. (15) must be known. In Eq. (15) the nonlinear function of $(x - \bar{x})$ is approximated by straight-line sections. Then the integral (15) may be computed using tables of the incomplete Γ -function. For the nonlinear characteristics shown on Fig. 2, the coefficients a_H are calculated and represented graphically on Figs. 3 to 23 given in the appendix. From a_{HD} the coefficients a_H may be obtained in the following manner: (1) for the nonlinearities of Fig. 2a and 2b: $a_H = a_{HD}L$;

(2) for Fig. 2c: $a_H = a_{HD} \frac{L}{1-\alpha}$, $x = \frac{h}{r}$.

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(3) for Fig. 2d, 2e, and 2f:

$$a_i = a_{in} N.$$

It is stated that under certain conditions the considered "transfer" function may be used for stability investigation of nonlinear systems. There are 28 figures; and 3 Soviet references.

SUBMITTED: April 29, 1959

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Method of Investigation of Accuracy of
Essentially Nonlinear Automatic Control
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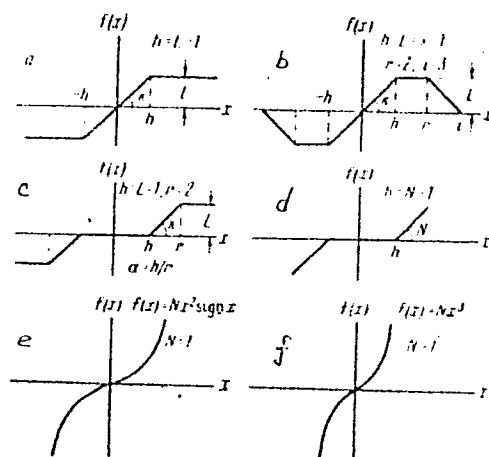


Fig. 2.

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PUPKOV, M., inzhener.

Wider use of flexible shields. Mast. ugl. 4 no. 12:3-4 D '55.

(MLRA 9:3)

(Kuznetsk basin--coal mines and mining--Safety measures)

PUPKOV, M. inzhener

High production brigade. Mast. ugl. 4 no.3:12-13 Mr '55.
(MLRA 9:6)

(Kuznetsk Basin--Coal mines and mining)

PUPKOV, N.

Kilning lime in field kilns. Sel'.stroil. 9 no.2:24
Mr-Ap '54. (MIRA 13:2)

1. Proizvoditel' rabot sovkhoza imeni Kaganovicha Krasnodar-
skogo kraya.
(Limekilns)

PUPKOV, V.N.

Formation, distribution, and variability of the snow cover
in the Asiatic U.S.S.R. Meteor. i godrol. no. 8:34-40 Ag '64
(MIRA 17:8)

1. TSentral'nyy institut prognozov.

PUPKOV, V.N.; KHZMALYAN, A.A.

Floods in the spring of 1961 in rivers of the European part
of the U.S.S.R. Meteor. i gidrol. no.2:57-61 F '62.
(MIRA 15:2)

(Floods)

CP

PROCESSING AND PROPERTIES

Eliminating white spots in fabrics. Ya. V. Popkov and I. I. Timofeev. Russ. 53,107, May 31, 1938. White spots on fabrics of natural silk are eliminated by moistening them with a warm soln. of Na_2CO_3 , treatment with a warm soln. of hypochlorite, then with NaHSO_3 , and washing with water.

ASH SLE METALLURGICAL LITERATURE CLASSIFICATION

SATEL', E.A., zasluzhennyy deyatel'nauki i tekhniki RSFSR, doktor tekhn.
nauk, prof.; PUPKOV, Ye.I., inzh.

Conference of institutions of higher education on scientific
fundamentals of an advanced technology for the manufacture of
machinery and instruments. Vest.mashinostr. 44 no.7:83-87 J1 '64.
(MIRA 17:9)

SATEL', E.A., zasluzhennyy deyatel' nauki i tekhniki, doktor tekhn.
nauk, prof.; PUPKOV, Ye.I., inzh.

Explosion hardening of metals abroad. Vest. mashinostr. 44 no.6:
75-77 Je '64. (MIRA 17:8)

L 18307-65 EWT(1)/EWT(m)/EPF(c)/EWP(v)/EPR/EWP(j)/I/EWP(k)/EWP(b) Pc-4/Pf-4/
Pr-4/Ps-4 JD/WW/HM/JT/JXT(EX)/RM
ACCESSION NR: AP4049461 S/0117/64/000/011/0020/0021

AUTHOR: Pupkov, Ye. I.

TITLE: Intercollegiate scientific technological conference (Conference of the ^B
Moscow Technical College during March 23-27, 1964)

SOURCE: Mashinostroitel', no. 11, 1964, 20-21

TOPIC TAGS: mechanical engineering / ED 5 epoxy cement, ED 6 epoxy cement

ABSTRACT: An All-Union Intercollegiate Conference on the Scientific Basis of
Progressive Technology of Mechanical Engineering and Instrument Manufacture was
held at the Moskovskoye vysshneye tekhnicheskoye uchilishche (Moscow Technical
College) during March 23-27, 1964. E. A. Satel' of the Moscow Technical College
outlined the objectives: to utilize all the available improvements in method
and design, especially to incorporate the findings of the exact sciences. P. I.
Biduli of the Moskovskiy vecherniy metallurgicheskiy institut (Moscow Evening
Metallurgical Institute) discussed the possibility of improving cast steel
during primary crystallization. A. I. Veynik of the Fiziko-tekhnicheskoy
institut AN BSSR (Physical and Technical Institute AN BSSR) reported on high-
frequency drying of cast rods. S. D. Gagin of the Moskovskiy energeticheskoy

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institut (Moscow Power Engineering Institute) and L. I. Gasparyan of the Moscow Technical College discussed the question of improving metal castings by means of a vacuum. The possibility of producing thin-walled large-scale cast panels was investigated by Yu. A. Stepanov, candidate of the technical sciences at the Moscow Technical College. Professor Yu. A. Nekhendzi of the Leningradskiy politekhnicheskii institut (Leningrad Polytechnical Institute) outlined the objectives of casting manufacture on the basis of domestic and foreign production. The possibility of chill casting was examined by Professor N. P. Dubinin of the Moscow Technical College. Professor A. P. Vladzhiyevskiy (ENIMS) showed that increased precision in making products at the present time has greatly outdistanced increase in precision of preparatory processes. Professor G. A. Shaumyan reported on a method, developed at the Moscow Technical College, of extending rotation surfaces. In the paper of I. S. Chernomorskiy (ENIMS) a new method was proposed for direct cutting of teeth in a gear wheel having a diameter up to 125 mm. Docent A. V. Pamfilov of the Bryanskiy institut transportnogo mashinostroyeniya (Bryansk Institute of Mechanical Engineering of Transportation) spoke of developments in very rapid cutting of steel (up to 15 000 meters per minute). Professor L. P. Lazarev of the Moscow Technical College reported on the use of quantum-optical generators in engineering practice. G. S. Shulev (Kaliningrad) discussed treatment of parts in a magnetic field. F. V. Sedy*kin

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of the Tul'skiy politekhnicheskiy institut (Tula Polytechnical Institute) gave results on electrochemical treatment of metals and alloys, and V. S. Kamalov of the Moscow Technical College discussed the possibility of vibrational cutting, especially for stainless and heat-proof steels. New welding methods developed at the Moscow Technical College were reported by Professor G. A. Nikolayev, and N. A. Ol'shanskiy of the Moscow Power Institute discussed electron-beam welding. N. F. Kazakov (Moscow) dealt with the possibility of welding quite different materials together (212 pairs). F. I. Matveyenkov of the Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR (Institute of Hydrodynamics of the Siberian Department AN SSSR) reported on the welding of sheet metal by a charge placed on the metal sheet. Engineer M. F. Sukhov of the Moscow Technical College told of attaching material to a lathe by means of ED-5 and ED-6 epoxy cement. Questions on the mutual relations of design, technology of production, and utilization of products were examined by Professor S. L. Anan'yev of the Moscow Technical College. Professor D. A. Prokoshkin of the same school pointed out that the utilization of results from solid state physics has opened up a broad range of use for metals and alloys. Functional interrelations were examined in the papers of Professor A. I. Yakushev of the Moscow Technical College and of I. G. Fridlender of the Zaporozhskiy mashinostroitel'nyy institut (Zaporozhye Mechanical Engineering Institute). The practical application of functional

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ACCESSION NR: AP4049461.

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interrelation was discussed by Engineer A. A. Chekmarev of the Moscow Technical College in regard to electrovacuum devices, by Ya. A. Bekirov (Moscow) for electrohydraulic systems, by G. N. Frolov (Moscow) for the elastic elements of various devices, and by others. The use of television-computer automation in technology was discussed by Professor V. S. Vikhman of the Moskovskiy avtomekhanicheskiy institut (Moscow Automation Institute). Docent V. M. Karpov of the Moscow Technical College reported on the use of eddy currents for controlling vibration, wobble, and rotational velocity. New methods of controlling the buffing of surfaces were discussed by Professor I. V. Dunin-Barkovskiy (MATI). Composite mechanization of productional processes in machine design was outlined in the report of O. V. Spasskaya of the Komitet po mashinostroyeniyu pri Gosplane SSSR (Committee on Mechanical Engineering for the State Planning Commission of the SSSR). P. V. Olizarov (Moscow) discussed automation in the production of bearings, and K. Ya. Mutsenek of the Rzhskiy politekhnicheskii institut (Riga Polytechnical Institute) dealt with automation in assembly operations. Engineer L. Ye. Kisilenko of the Moscow Technical College made a similar report on automation in casting manufacturing, and E. G. Livshits of the Institut matematiki i vy*chislitel'noy tekhniki AN BSSR (Institute of Mathematics and Computer Technology AN BSSR) did the same for electronic computers. Docent A. S. Shashkin of the Moscow Automation Institute discussed the classification

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of products with surfaces treated by cutting. B. D. By*lov (ENIMS) discussed the degree of reliability in determining the value of newly proposed technological processes. A similar treatment was made by V. T. Poluyanov of the Ufimskiy aviatsionny*y institute (Ufa Aviation Institute).

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 5/5

PUPKOV, Z.

On the significance of auscultation of the heart in the diagnosis of mitral stenosis with special reference to indications for mitral commissurotomy. Khirurgiia, Sofia 14 no.2/3:225-229 '61.

1. Vissh voenno-meditinski institut.

(MITRAL STENOSIS diag) (AUSCULTATION)

PUPKOV, Z.

Electrocardiographic observations in mitral commissurotomy. Khirurgia,
Sofia 14 no.2/3:235-238 '61.

1. Visssh voenno-meditssinski institut.

(MITRAL STENOSIS surg) (ELECTROCARDIOGRAPHY)

PUPKOV, Z., Dr.

AVRAMOV, E.

Authors of an article entitled "Concerning Some Results of Roentgen Examination During Operative Treatment of Mitral Stenosis." (Voenno Meditsinsko Delo, Sofia, Mar 61, pp 57-61)

STOIANOV,K.,prof.; STOICHEV,A.; PUPKOV,Z.; FILIPOV,S.

Postoperative course in patients operated for mitral stenosis.
Khirurgiia,Sofia 13 no.2-3:292-294 '60.

1. Iz Katedrata po bolnichna khirurgiia pri ISUL.
(MITRAL STENOSIS surg.)

PUPKOV, Z. I.
STOIANOV, K. A., Prof., gen.; PUPKOV, Z. I.

Surgical treatment of mitral stenosis. Suvrem. med., Sofia
7 no.9:35-40 1956.

1. Glaven ihirurg na bulg. narodna armia (for Stoianov)
Iz Obshchoarmeiskata bolnitsa (Nachalnik: med. of. L. Angelov).
(MITRAL STENOSIS, surg.)

IVANOV, A.P.; LEYTSYNA, V.G.; PHIPLIKOVA, I.N.

Determination of the concentration of several dyes simultaneously
adsorbed on fiber. Zhur.anal.khim. 17 no.4:511-517 J1 '62.
(MIRA 15:3)

1. Institute of Physics, Academy of Sciences of the Byelorussian
S.S.R., Minsk.

(Dyes and dyeing--Textile fibers) (Spectrum analysis)

LAZERKO, G.A.; PUPLIKOVA, O.N.

Formation of copper ammonium chlorides. Uch.zap. BGU no.29:
114-120 '56. (MIRA 11:11)
(Copper ammonium chlorides) (Chemical reaction, Rate of)

PUTNIK, Anton

Yugoslavia - Labor and Laboring Classes

Workers of Yugoslavia under the yoke of Tito's fascist dictatorship. Vsem. Prof. dvizh. No. 1⁸, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 195²~~8~~, Uncl.

IGNAT'YEV, G. (Leningrad); SEMENOV, N. (Leningrad); PUPOV, I. (Leningrad)

In support of the Communist way of life. Zhil.-kom. khoz. 11
no.4:13 Ap '61. (MIRA 14:6)
(Leningrad--Housing management)

PUPOV, K.

Termopretsipitator. Suvrem. med., Sofia 7 no.4:108-110 1956.

1. Iz Nauchnoizsledov. inst. po trudova khigiiena i profes.
bolesti--Sofia (Direktor: M. Lukanov).

(AIR POLLUTION, determination,
thermoprecipitation, appar. (Bul))

PUKHOV, Ye.I.

Scientific and technological conference of institutions of
higher learning. Mashinostroitel' no.11:20-21 N '64
(MIRA 18:2)

L 15504-66

ACC NR: AT6007450

SOURCE CODE: HU/2505/65/026/00X/0050/0051

AUTHOR: Halasz, B.; Pupp, L.

ORG: Medical University of Pecs, Institute of Anatomy (Pecsi Orvostudományi Egyetem, Anatómiai Intézet)

TITLE: Hypophysiostrophic area and adeno-hypophysial function [This paper was presented at the 29th Meeting of the Hungarian Physiological Society held in Szeged from 2 to 4 July 1964]

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, Supplement, 1965, 50-51

TOPIC TAGS: ⁵⁵endocrinology, rat, histology, hormone, vitamin, thyroid gland

ABSTRACT: Implanted into the basal medial part of the hypothalamus of hypophysectomized rats, the adeno-hypophyseal tissue retains its normal histological structure, and its adrenocorticotrophic, gonadotrophic and thyrotrophic activity. That hypothalamic area was, therefore, termed "hypophysiostrophic area." In the present study, this area was isolated and the functional capacity of the adeno-hypophysis connected with the isolated hypophysiostrophic area was tested by examination of the lipid pattern, compensatory hypertrophy and ascorbic acid depletion of the

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adrenals, corticosterone content of adrenal venous blood, histological structure of the thyroid, value of the T/S ratio, reaction to thiouracil, histological structure of the ovary and its compensatory hypertrophy, as well as the sequence of events in the vaginal cycle. The experimental results have shown that the isolated hypophysiotrophic area is able to maintain trophic function, especially the thyrotrophic and adrenocorticotrophic functions, of the adenohypophysis. [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 2/2

HUNGARY

HALASZ, Bela, PUPP, Lajos, UHLARIK, Sandor, TIMA, Lajos; Department of Anatomy, Medical University, Pecs (Orvostudományi Egyetem Anatómiai Intézete, Pecs).

"Growth of Hypophysectomized Rats Having Pituitary Transplants in the Hypothalamus."

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Vol XXIII, No 3, 1963, pages 287-292.

Abstract: [English article; Authors' English summary] Growth of hypophysectomized young rats with an anterior pituitary implant in the hypothalamus, in non-hypothalamic regions of the brain or under the renal capsule have been studied. Significant gain of body weight occurred exclusively if the implant was located in the hypophysis-tropic area of the hypothalamus. Implants outside this area, in whatever other location, caused a weight-gain that was only slightly above that of the hypophysectomized controls and could not be influenced in a significant degree by additional administration of thyroxine. The presence of acidophils in pituitary grafts depended entirely on the state of the thyroid.

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HALASZ, B.; PUPP, L.; UHLARIK, S.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001343610018-4"

Change in pituitary gland system following electrolytic lesion of median eminence and hypophyseal stalk in male rats. Acta morph. acad. sci. hung. 12 no.1:23-31 '63.

1. Department of Anatomy, University Medical School, Pecs, (Director: Prof. J. Szentagothai).

(HYPOTHALAMUS) (PITUITARY GLAND) (GONADS)
(THYROID GLAND) (ADRENAL GLANDS) (PHYSIOLOGY)

HALASZ, B.; PUPP, L.; UNLARIK, S.; TIMA, L.

Growth of hypophysectomized rats bearing pituitary transplant in the hypothalamus. Acta physiol. acad. sci. hung. 23 no.3:287-292 '63.

1. Department of Anatomy, Medical University, Pecs.

(HYPOPHYSECTOMY)	(HYPOTHALAMUS)	(PITUITARY GLAND, ANTERIOR)
(BRAIN)	(KIDNEY)	(BODY WEIGHT) (THYROXIN) (EOSINOPHILS)

PUPP, Lajos, dr.

Aplastic crisis in hemolytic anemias. Orv.hetil. 101 no.36;
1281-1282 4 S '60.

1. Fovarosí Bajcsy-Zsilinszky Kórház, I. Belosztály
(ANEMIA HEMOLYTIC compl)

HUNGARY

PUPPI, Andras; Institute of Physiology, Medical University, Pecs
(Orvostudományi Egyetem Elektrológiai Intézete, Pecs).

"Electrophysiological and Pharmacological Analysis of the Effect of
Acetylcholine on the Inhibitory Mechanism of the Tone of the Posterior
Adductor Muscle in Lamellibranchiata."

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Vol
XXIII, No 3, 1963, pages 247-257.

Abstract: [English article; Author's English summary] Acting on the
neural elements, high concentrations of acetylcholine (10^{-3}) first
increase, then inhibit the bioelectrical activity of the ganglia.
Low concentrations (10^{-6}) give rise to long-lasting electronegativity.
Myographic studies have suggested that acetylcholine was responsible
for the excitation and inhibition of tetanic muscle elements. After
transection of the connectivum, it can elicit or enhance the develop-
ment of tone, but is not responsible for the inhibitory process of
tonic elements. Since, after neostigmine treatment, the ganglionic
bioelectric potentials and the tone of the posterior adductor muscle

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L 15499-66

ACC NR: AT6007445

SOURCE CODE: HU/2505/65/026/00X/0048/0048

AUTHOR: Lissak, K.; Tigyi, A.; Benedeczky, I.; Puppi, A.

ORG: Medical University of Pecs, Institute of Physiology (Pecsi Orvostudományi Egyetem, Elettani Intézet)

TITLE: Electron-microscopic identification of the catecholamine substances of the adrenal medulla/This paper was presented at the 29th Meeting of the Hungarian Physiological Society held in Szeged from 2 to 4 July 1964

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, Supplement, 1965, 48

TOPIC TAGS: animal physiology, amine, endocrinology, gland, biologic secretion, electron microscopy, experimental animal

ABSTRACT:

Following a general ultrastructural analysis of adrenal medullary secretion in different mammalian species, the identification of the secretory granules (sg) is discussed. In some cells of the adrenal medulla of the frog and grass snake, adrenalin-containing sg 1000 Å in diameter, in some other cells sg containing noradrenalin and 3000 Å in diameter can be detected. In the rat, mouse and dog, the two granules are

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ACC NR: AT6007445

present in the same cells. The difference in size and specific gravity between the two types of sg are also confirmed by ultracentrifugal fractionation.

The adrenalin activity of the small granules is supported by the evidence obtained from insulin loading experiments in rats as well. In addition to the two types of granules discussed above, a third type has also been observed. These granules are 0.5-1.5 μ in size, possess a fine internal structure and are surrounded by a membrane. On the basis of ultracentrifugal fractionation and chemical determinations, these structures are believed to represent precursor granules containing dopamine. [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 2/2

BENEDECZKY, I.; PUPPI, A.; TIGYI, A.

Histochemical and electron microscopical study of the adrenal medulla of the grass snake (*Natrix natrix*). *Acta biol. acad. sci Hung.* 15 no.3:271-284 '65

1. Institute of Physiology and Biology, Medical University, Pecs (Head: K. Lissak).

PUPPI, A.; BENEDECZKY, I.; TIGYI, A.; LISSAK, K.

Identification of dopamine-containing granules in the adrenal medulla. Acta physiol. acad. sci. Hung. 27 no.4:341-347 '65.

1. Institute of Physiology, University Medical School, Pecs.

BENEDECZKY, I.; PUPPI, A., TIGYI, A.; LISSAK, K.

Electron microscopic study of adrenaline and noradrenaline secretion of the adrenal medulla. Acta biol. acad. sci. Hung. 15 no.3:285-298 '65

1. Institute of physiology and biology, Medical University, Pecs (Head: K. Lissak).

HUNGARY

PUPPI, Andras; Institute of Physiology, Medical University, Pecs (Orvostudományi Egyetem Elektani Intezete, Pecs).

"Electrophysiological and Pharmacological Analysis of the Effect of Serotonin on the Inhibitory Mechanism of the Posterior Adductor Muscle in Lamellibranchiata."

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Vol XXIII, No 3, 1963, pages 259-268.

Abstract: [English article; Author's English summary] Serotonin does not inhibit the development of normal tone before sectioning the connectivum but it accelerates the process of tone inhibition when applied to the visceral ganglion and to the posterior adductor muscle. After the connectivum has been cut, it strongly enhances the tone-inhibiting process. In all likelihood, its role is to stimulate tone inhibition and it might act as the mediator of inhibition. Since serotonin is a good substitute for the removed cerebral ganglion, it may be surmised that the specific role of this ganglion (pessimum inhibition of tone) is realized through serotonin mediation. 5-Hydroxytryptamine, applied

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HUNGARY

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Vol
XXIII, No 3, 1963, pages 259-263.

to the ganglia, shows a biphasic effect: 1. it first increases bio-
electric activity, then 2. it decreases it. Prior to cutting the con-
nectivum, lysergic acid diethylamide (LSD) exerts an effect opposed to
that of serotonin. After cutting the connectivum, the effect of LSD is
reversed; this appears to be correlated with changes in the metabolism
of serotonin. LSD can maintain the increased activity of nerve elements
for a long time and thus the quantitative difference between the effects
of serotonin and LSD may turn into a qualitative antagonism. 4 Eastern
European, 17 Western references.

2/2

FUPPI, A.

Electrophysiological and pharmacological analysis of the effect of adrenaline and noradrenaline on the inhibitory mechanism of the posterior adductor in Lamellibranchiate. Acta physiol. acad. sci. Hung. 24 no.3:335-343 '64

1. Institute of Physiology, Medical University, Pecs.

PUPPI, A.

Electrophysiological and pharmacological analysis of the effect of serotonin on the inhibitory mechanism of the posterior adductor muscle of Lamellibranchiata. Acta physiol. acad. sci. hung. 23 no.3:259-268 '63.

1. Institute of Physiology, Medical University, Pecs.
(SEROTONIN) (MUSCLES) (NERVOUS SYSTEM) (PHYSIOLOGY)
(LYSERGIC ACID DIETHYLAMIDE) (ELECTROMYOGRAPHY)

PUPPI, A.

Electrophysiological and pharmacological analysis of the effect of γ -aminobutyric acid and picrotoxin on the inhibitory mechanism of the posterior adductor in *Lamelli-branchiata*. Acta physiol. acad. sci. Hung. 24 no.2:223-228 '63.

1. Institute of Physiology, University Medical School, Pecs.
(ELECTROPHYSIOLOGY) (PHARMACOLOGY)
(AMINOBTYRIC ACID) (PICROTOXIN)
(MYOGRAPHY) (MUSCLES)

PUPPI, A.

Electrophysiological and pharmacological analysis of the effect of acetylcholine on the inhibitory mechanism of the tone of the posterior adductor muscle of Lamellibranchiata. Acta physiol. acad. sci. hung. 23 no.3:247-257 '63.

1. Institute of Physiology, Medical University, Pecs.
(ACETYLCHOLINE) (MUSCLES) (NERVOUS SYSTEM)
(NEOSTIGMINE) (ELECTROMYOGRAPHY) (ATROPINE) (PHYSIOLOGY)

"PUPPI, A.

Electrophysiological and pharmacological analysis of the effect of adrenaline and noradrenaline on the inhibitory mechanism of the posterior adductor in Lamellibranchiata. Acta physiol. acad. sci. Hung. 24 no.3:335-343 '64

1. Institute of Physiology, Medical University, Pecs.

*

L 10324-66

ACC NR: AP6003357

SOURCE CODE: HU/0018/65/017/002/0219/0219

AUTHOR: Puppi, Andras

ORG: Institute of Physiology, Medical University of Pecs (Pecsi Orvostudományi Egyetem Elettani Intézete)

TITLE: Modified Sartorius vessel

SOURCE: Kiserletes Orvostudomány, v. 17, no. 2, 1965, 219

TOPIC TAGS: surgery, surgical equipment

ABSTRACT: In the modified Sartorius vessel, a capillary is used instead of the glass hook to support the thread. The capillary leads through to the outer surface of the vessel and can also be used for the oxygenation of the organ. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 06 / SUBM DATE: 09Jun64

Card 101

PUPPIS, K.

Yugoslavia (430)

Technology

The use of plants in hydraulic engineering. p. 27, Nowa Produkcja, Vol.2,
no. 1, February 1951.

East European Accessions List, Library of Congress, Vol. 2, No. 3, March 1953.
UNCLASSIFIED.

PUPPIS, K.

Yugoslavia (430)

Technology

Water resources planning in Yugoslavia. p. 13, Nova Proizvodnja, Vol. 2,
no. 1, February 1951.

East European Accessions List, Library of Congress, Vol. 2, No. 3, March 1953.
UNCLASSIFIED.

PUPPIS, K.

"Vegetal Constructions." p. 22. (Nova Proizvodnja, Vol. 4, no. 1, Apr., 1953, Ljubljana.)

SO: Monthly List of East European Vol. 2, No. 9,
~~Russian~~ Accessions, Library of Congress, September 1953, Uncl.

010 151 61

AID P - 1129

Subject : USSR/Engineering

Card 1/1 Pub. 78 - 7/25

Author : Pupshev, A. V.

Title : Well drilling for survey of underground structure with
SB-1-900 rotary table

Periodical : Neft. khoz., v. 32, #11, 26-30, N 1954

Abstract : The portable well drilling rig with the SB-1-900 rotary
table is outlined. This rig shows substantial changes in
parts in comparison with the old one. One drawing and 5
Russian references (1950-1953).

Institution : None

Submitted : No date

FUPSEV, A.V.

Drilling structural exploratory wells with the SB-1-900 apparatus.
Neft.khoz. 32 no.11:26-30 N '54. (MIRA 7:12)
(Oil well drilling) (Prospecting)

PUPTSEV, S.A., inzh.; SHMELEV, V.A., inzh.

Effect of the temperature of the air prior to its admission
into regenerators on cold losses in air separation units.
Khim. i nef. mashinostr. no. 5:27 N '64 (MIRA 18:2)

PUPTSEV, S.A., inzh.

Study of the operation of a water evaporating system for preliminary air cooling using external parameters. Izv. vys. ucheb. zav.; energ. 8 no.5:69-76 My '65. (MIRA 18:6)

1. Leningradskiy tekhnologicheskij institut kholodil'noy promyshlennosti. Predstavlena kafedroy glubokogo okhlazhdeniya.

PUPTSEV, S.A.

Hydraulic resistance of regenerators with stone packing. Trudy
LTIKHP 15:39-50 '58. (MIRA 13:4)

1. Predstavlena Kafedroy glubokogo okhlazhdeniya Leningradskogo
tekhnologicheskogo instituta kholodil'noy promyshlennosti.
(Oxygen) (Hydraulics)

DOBRETSOV, N.L.; PUPYSHEV, N.A.

Find of marine Middle Carboniferous sediments in the eastern
Tarbagatay Range. Trudy VSEGEI 74:59-62 '62. (MIRA 15:9)
(Tarbagatay Range---Geology, Stratigraphic)
(Tarbagatay Range---Deep-sea deposits)

S/184/62/000/004/005/006
D040/D113

AUTHORS: Puptsev, S.A., and Stolyarov, A.I.

TITLE: Experience in the operation of an oxygen plant under tropical conditions

PERIODICAL: Khimicheskoye mashinostroyeniye, no. 4, 1962, 37-39

TEXT: The operational performance of the oxygen plant at the Bhilai Metallurgical Plant in India is discussed. The oxygen plant consists of 2 KCH-30 T (KCH-30T) units producing dry 99.2-99.5% pure oxygen at 45 cylinders/shift in winter and '50 in summer. An additional nitrogen water scrubber had to be used to cool high-pressure air, the four-stage compressor had to be replaced by a five-stage one, 2 decarbonizers had to be used instead of one, and the main heat exchanger head in the fractionating unit had to be changed. The scrubber proved effective and cools water from 40 to 15-16°C in very hot weather. Its design is briefly described and its efficiency illustrated graphically. The quantity of water fed into the scrubber affects the efficiency of the whole plant; this confirms the data

Card 1/2

Experience in the operation ...

S/134/62/000/004/005/006
D040/D113

of the VNIIEKIMISH Institute. The KGN-30T plant proved applicable under tropical conditions, and the NZhK-4 (NZhK-4) liquid oxygen pump proved to be dependable in pumping dry oxygen. Heat insulation ought to be used on air and nitrogen pipings, and the fractioning, drying and cooling units ought to be placed closer to one another. There are 2 figures and 1 table.

Card 2/2

PUPTSEV, S.A.; STOLYAROV, A.I.

Operating experience of an oxygen plant under conditions prevailing
in a tropical climate. Khim.mash. no.4:37-39 J1-Ag '62. (MIRA 15:7)

(India--Oxygen) (Air compressors)

PUPTSEV, S.A., inzhener.

Manufacture of industrial oxygen for the intensification of metallurgical processes. Metallurg no.4:15-17 Ap '56. (MLRA 9:9)

1. Zamestitel' nachal'nika energosilovogo tsakha zavoda "Zaporozhstal'".
(Zaporozhye--Oxygen--Industrial applications)

KOPELIOVICH, Mikhail Mikhaylovich; PUPTSEV, S.A., inzh., retsenzent;
INDENBAUM, V.S., inzh., red.; LANOVSKAYA, M.R., red.izd-va;
ISLENT'YEVA, P.G., tekhn.red.

[Safety techniques in oxygen sections of metallurgical plants]
Tekhnika bezopasnosti v kislorodnykh tsekhakh metallurgicheskikh
zavodov. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i
tsvetnoi metallurgii, 1960. 44 p. (MIRA 14:1)
(Metallurgical plants--Safety measures)
(Oxygen--Industrial applications)

PUPTSEV, S.A.

Pressure loss in the stone checkerwork of regenerators in oxygen
installations. Nauch. dokl. vys. shkoly; energ. no.2:147-152
'58. (MIRA 11:11)

(Hydraulics)

SHMELEV, S.A., inzh.; SHMELEV, V.A., inzh.

Operation of nitrogen-water air cooling system for an oxygen plant.

Prom. energ. 20 no.10:15-19 0 '65.

(MIRA 18:10)

L 16331-65 EWT(m)/EPF(c)/EPR Pr-4/Ps-4 RPL WW/JW

ACCESSION NR: AP4049179

S/0314/64/000/005/0027/0027

AUTHOR: Puptsev, S.A., (Engineer), Shmelev, V.A., (Engineer) B

TITLE: Effect of air temperature before the regenerator on cold losses in air fractionating units

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 5, 1964, 27

TOPIC TAGS: oxygen²¹ production, oxygen liquefaction, oxygen gasification, air fractionation, turbo-expander, air precooling, cold loss

ABSTRACT: In low-pressure air fractionating units, the cold losses are mainly compensated for by the cold produced during expansion of part of the air in the turbo-expander, prior to flow of air into the middle part of the upper column. Delivery of over 25% of the quantity of cooled air leads to a lowering of the oxygen extraction coefficient. In the BR-5 unit, due to high losses of cold, the quantity of expanded air at 20C equals 31%. In this case, lowering of the cold losses is very important. About half of the losses in low-pressure oxygen units with a capacity of 4,000-6,000 m³/hr. are caused by non-recuperation at the warm end of the regenerators. Depending on the humidity of the air entering the regenerators, the upper layers of the packing during direct flow act differently. For a humidity below 100% the air in the upper layers is cooled by

Card 1/2

L 16331-65
ACCESSION NR: AP4049179

convective heat exchange. When water-saturated air is delivered to the regenerator, the moisture is condensed beginning with the upper edge of the regenerator packing. Due to the high latent heat of water evaporation, the cold losses due to moisture evaporation may be significant. The authors tested the BR-5 unit at the Bhilai Iron and Steel Plant (India) to determine the relationship between cold losses and the temperature of the air delivered into the regenerator. The system had a pre-cooler allowing them to vary and maintain any air temperatures between 7 and 42C. The cooling capacity of the turbo-expander was calculated from measurements of the pressure and temperature of the air before and after the turbo-expander, as well as of the air flow. The ambient temperature was 30-40C and did not affect the cold losses. The straight lines obtained show that the cold losses rise from 1.8 to 2.15 Cal/m³ as the temperature of the air entering the regenerator increases from 7 to 42C. Tests confirm the theory that part of the moisture entering the regenerator is discharged in the form of drops and removes part of the cold. Therefore, in large air fractionating units, waste nitrogen should be used to cool the air before entering the regenerator. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, *ac*

NO REF SOV: 001

OTHER: 000

Card 2/2

Popov, S. A.

Production of technological oxygen for intensification of
metallurgical processes. S. A. Popov. Metallurg. 1956,
No. 4, 16-17.—A discussion. V. N. Bednarski

ONOPRIYENKO, A.A.; PU' TSIN, N.M.

Investigating the soldering of the VTZ-1 alloy with lKh18N9T
and EI69 steels. Izv. vys. ucheb. zav.; tsvet. met. 7 no. 4:
121-123 '64 (MIRA 19:1)

1. Voennoy inzhenerneye akademiya.

PUPYREV, V.A. (Leningrad); UFLYAND, Ya.S. (Leningrad)

Some contact problems for an elastic layer. Prikl. mat. i mekh.
24 no.4:683-690 J1-Ag '60. (MIRA 13:9)
(Elasticity)